

Cytotoxic and anti-tumour promoting activities of carbazole alkaloids from Malayan *Murraya koenigii* (L.) Spreng

ABSTRACT

Murraya koenigii (L.) (Rutaceae) is an indigenous medicinally important herb of Indian origin and now is widely distributed throughout southern Asia. The stem bark, leaves and roots of Malayan *Murraya koenigii* were selected for phytochemical investigation. Eight carbazole alkaloids was isolated and identified using spectroscopic methods including NMR, IR, UV, MS spectra data. Crude extract and isolated compounds from the roots of this plant were screened for cytotoxic activity and antitumor promoting activity. All crude extracts of the roots including the isolated compounds, mahanimbine, mahanine and murrayafoline-A exhibited significant cytotoxic activity against CEM-SS cell line with IC₅₀ 3mg/mL. Girinimbine inhibited EBV-activation in the antitumor promoting assay.

Keyword: Carbazole; Rutaceae; *Murraya koenigii*; NMR; Cytotoxic